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Services Since 1986"

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September 13, 1999

Mr. John Jurgensmeyer
Environmental Specialist
The State of Missouri Department of Natural Resources
Hazardous Waste Enforcement Unit
1738 East Elm St.
Jefferson City, Missouri 65101

RECEIVED

SEP 14 1999

HAZARDOUS WASTE PROGRAM
MISSOURI DEPARTMENT OF
NATURAL RESOURCES

Subject: St. Louis Job Corps Center Settlement Agreement of April 19, 1999

Dear Mr. Jurgensmeyer:

Please find enclosed three copies of Environmental Assessment and Training Report for the St. Louis Job Corps Center. The report constitutes partial fulfillment of the terms of the Settlement Agreement between the Missouri Attorney General, Missouri Department of Natural Resources and the Department Labor's St. Louis Job Corps Center (Center) and includes the findings and recommendations resulting from an independent facility environmental assessment and compliance evaluation performed by Dynamic Technology Systems, Inc. (DTS) for the Center.

The report also presents a list of attendees and the agenda of the July 22, 1999 hazard communication and hazardous waste regulation overview training performed by DTS. Copies of the overheads used for that training session are available upon request.

We trust that this report fulfills the terms of item 3, page 4 of the Agreement Which requires: 1) additional hazardous waste training and an environmental audit of the facility, and 2) certification that the employees were trained, the training date, and the topics of the training.

Should you have any questions about the enclosed materials, please feel free to contact me at (703) 823-3040.

Sincerely,

Rodney Salimi
Rodney Salimi

Project Manager, Environmental Engineering

Enclosures: As Stated

Site: SOP
ID # MD8310022465
Break: 1.3
Other: 9/23/99

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SUPERFUND RECORDS

STL011

**ENVIRONMENTAL ASSESSMENT
AND TRAINING REPORT**

**ST. LOUIS JOB CORPS CENTER
4333 GOODFELLOW BOULEVARD
ST. LOUIS, MISSOURI**

SEPTEMBER 13, 1999

Prepared for:

Department of Labor
St. Louis Job Corps Center
4333 Goodfellow Blvd.
St. Louis, Missouri 63120

Prepared by:

Dynamic Technology Systems, Incorporated
50 South Pickett Street, Suite 229
Alexandria, Virginia 22304-3008

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**ENVIRONMENTAL ASSESSMENT AND TRAINING REPORT
ST. LOUIS JOB CORPS CENTER
4333 GOODFELLOW BOULEVARD
ST. LOUIS, MISSOURI**

September 13, 1999

1. INTRODUCTION

Dynamic Technology Systems, Incorporated (DTS) performed an environmental site assessment, a Resource Conservation and Recovery Act (RCRA) compliance evaluation, and environmental and hazard communication training for the St. Louis Job Corps Center located on Goodfellow Boulevard in St. Louis, Missouri. By their very natures, the assessment and evaluation are limited in scope and do not include detailed site characterization, sampling, or an exhaustive documents review. Rather, the purpose is to investigate the property in a manner that should reveal any gross contamination or environmental impairment, and should indicate the general compliance status of the facility. The results of the investigation are intended to demonstrate that the St. Louis Job Corps has exercised due diligence in accordance with accepted industry practice and can be used to establish a preliminary baseline regarding environmental conditions at the property.

The specific purpose for this study of the St. Louis Job Corps Center was to:

- Respond to specific requirements imposed by the Missouri Department of Natural Resources (MDNR) as a result of their January 8 and 12, 1998 site inspections, Notices of Violation, and the April 19, 1999 Settlement Agreement,
- Evaluate current environmental compliance at the site relative to raw product and waste handling practices,
- Assess the general compliance and training status of site personnel,
- Investigate general environmental conditions at the site, particularly with regard to asbestos and hazardous wastes,
- Provide a one-day training course for maintenance and security personnel in the areas of hazardous waste regulations (RCRA) and hazard communication.

2. SCOPE AND METHOD OF INVESTIGATION

Site visits were performed on June 10 and June 23, 1999. The visits included an inspection of the property and introduction to the activities and materials handling practices ongoing at the facility. DTS personnel were accompanied by Mike Miller, Maintenance Supervisor, and Perry Johnson, Manager of Safety and Security. Two of the Job Corps instructors were interviewed during the tour in the paint and the welding shops. Although an attempt was made to view most areas where environmental conditions may be a concern, many areas were inaccessible due to the presence of suspected asbestos containing materials (ACMs) and to restricted access imposed by the military.

In addition to the site tour, site personnel were interviewed regarding the applicability of the following regulations:

- Emergency Planning and Community Right-to-Know (EPCRA or SARA Title III)
- Clean Air Act and Amendments (CAA)
- Stormwater permitting
- RCRA Subtitle I - Underground Storage Tank (UST) regulations
- Toxic Substance Control Act (TSCA)
- Spill Prevention, Control, and Countermeasures (SPCC)
- National Pollution Discharge Elimination System (NPDES)
- Resource Conservation and Recovery Act (RCRA)

Standard databases were searched for evidence of environmental releases, waste handling, hazardous materials handling, disposal, or other significant practices in adjacent properties. Because the Center property was used by the Department of Defense in the past, the military also was contacted for information.

The tasks comprising this evaluation were conducted to provide a reasonable level of investigation to identify environmental problems and evaluate compliance. Such problems may have been the result of past, uncontrolled use, spillage, or discharge of chemical substances. Or problems may arise from current waste handling procedures. This investigation does not include an exhaustive records search or the review of information that was not readily available.

3. SITE DESCRIPTION

The site is leased by the United States Department of Labor (Job Corps) and operated by the Job Corps' contractor, MINACT, INC. The Job Corps teaches trades to indigent youth and offers pay during their training. The facility is composed of multiple buildings used as classrooms, shops, dormitories, offices, and other support buildings. These buildings are part of land owned by the Army Reserve and formerly the U.S. Army's St. Louis Ordinance Project. Job Corps leases the site from the Army Reserve. Some buildings have been razed due to renovation for the property's current use.

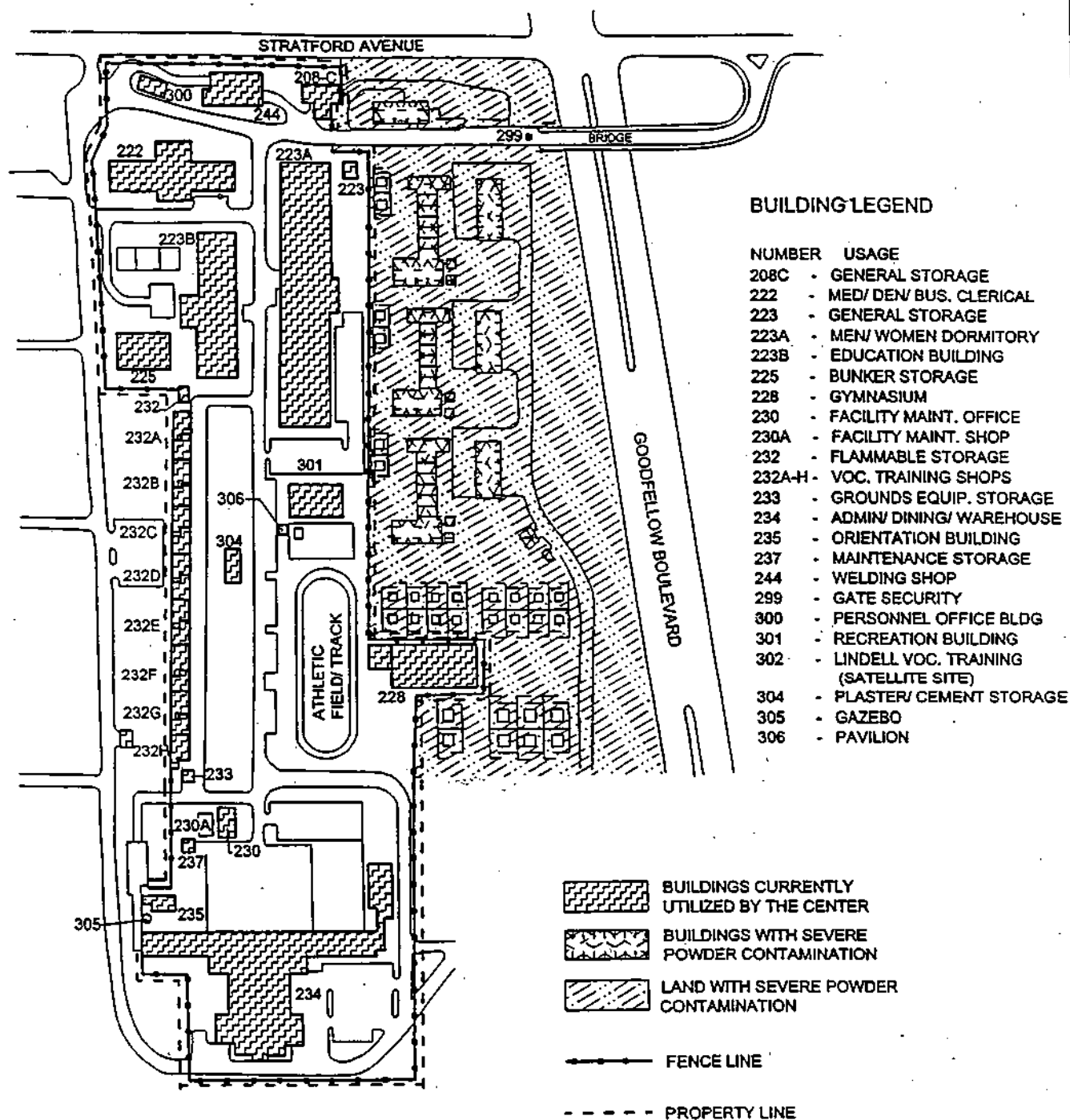
Figure 1 presents a map of the Job Corps property, located at the southwestern intersection of Goodfellow Boulevard and Stratford Avenue. The property encompasses approximately 23 acres of developed land consisting of 23 active buildings. Almost all of the grounds are either covered by buildings or are paved. Figure 1 shows those buildings currently utilized by the Center and those areas that may be contaminated by past military use. DTS did not visit any of the buildings outside of the fenceline as shown on Figure 1.

Active buildings include the following:

208C	General Storage	234	Administration/Dining Room/ Warehouse
222	Medical/Dental/Business Clerical	235	Orientation Building
223	General Storage	237	Maintenance Storage
223A	Dormitories	244	Welding Shop
223B	Education Building	299	Gate Security
225	Bunker Storage	300	Personnel Office Building
228	Gymnasium	301	Recreation Building
230	Facility Maintenance Office	302	Lindell Vocational Training (Satellite Site)
230A	Facility Maintenance Shop	304	Plaster/Cement Storage
232	Flammable Storage	305	Gazebo
232A-H	Vocational Training Shops	306	Pavilion
233	Grounds Equipment Storage		

The general activities that take place at the facility include:

- Maintenance and grounds keeping
- Painting
- Welding
- Plastering and concreting
- Masonry
- Janitorial
- Carpentry
- Business/clerical/retail
- Security
- Electrical
- Storage
- Classroom instruction
- Health Center operations
- Residential
- Food service
- HVAC
- Administration

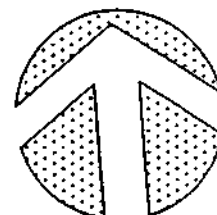


MAIN CAMPUS SITE PLAN

Figure 1.

ST. LOUIS JOB CORPS CENTER
4333 GOODFELLOW BLVD.
ST. LOUIS, MO. 63120

0 50' 200' 300'



4. BACKGROUND AND HISTORICAL RECORDS

4.1 Ownership by Department of Defense

There were no definitive ownership records that were available for review at the time of this assessment. Discussions with the environmental manager at the 620th Support Battalion of the Army Reserve (Robert Buckner, 314-263-3430, July 23, 1999) revealed that he was stationed at the Job Corps property during 1966 through 1980. The entire army property consisted of approximately 40 acres that was taken over by the Army in 1941. The property became a small arms plant that made 30 caliber rifle and pistol ammunition. They were affiliated with the Weldon Springs training facility, where much of the raw material was stored. Bullets were made from brass and smokeless granular powder, which is reported to be less explosive than black powder. The Job Corps property was used for assembly, and many of the buildings housed large machines at one time. The floors were made of spark-resistant soft concrete or creosote-impregnated wood floor blocks. Bunkers were located throughout the property, housing individual power plants. Nearby residential neighborhoods appeared in the mid-1970s. The Army negotiated the transfer of the Job Corps property in 1978 when the new Army Reserve Center was constructed on adjacent land to the east.

At the time that the Job Corps property was still under the control of the Army, Hanley Industries, an army contractor, was operating a manufacturing facility in the buildings immediately adjacent to what is now the Job Corps property. Hanley was in the business of making primers and detonators for the Navy and is currently part of Olin Manufacturing in Alton, Missouri. Mr. Ray Stimal, a former foreman with Hanley Industries (618-465-8892, July 23, 1999) was interviewed to confirm some of Mr. Buckner's recollections. Mr. Stimal recalled that the property where the Job Corps is located used to contain mainly storage because most of the heavy equipment and assembly machines were located across the street. The buildings east of the current fenceline and farthest from the present driveway into the Job Corps Center were occupied by McDonald Douglas. Schluder Manufacturing (the property that currently is identified as Puro Chemical) was operating in buildings directly north of Stratford Avenue. In 1979, all of the army products were moved into storage across the street.

A visit to the Job Corps facility by Mr. Buckner on July 23, 1999 revealed that Buildings 223A and B were formerly used for assembly work. Building 301, the Recreation Center, was built by Job Corp students and did not exist at the time of the Army's occupation. Concrete bunkers ran the length of the central north-south road, but they were demolished before the Department of Labor took over the facility. Maintenance was located in the current maintenance Buildings 230 and 230A. The current Administration building, Building 234, housed the reserve and civil air patrol, and was vacated prior to Department of Labor's occupation. The army's motor pool was located behind the Administration building. There were three bunkers located in the grass in front of the Administration building, and Mr. Buckner reported that there were very heavy storage tables in the bunkers when the Reserves took over in 1959. The property to the southwest of the current fenceline consisted of housing. The two existing bunkers behind the current Wellness Center, Building 222, may have been used as power plants.

The Corps of Engineers reportedly performed the facility maintenance, while the Reserves under the XI CORPS constituted the major command. Mr. Buckner thought that the Environmental Officer at Fort Leonard Wood would have copies of any environmental reports related to the property. The Environmental Officer was contacted on August 5, 1999 (573-596-

0131), but claimed to have no environmental reports. He suggested contacting the Fort Leonard Wood real estate office.

On August 5 and 6, 1999 Ms. Darietta Howe of the Department of Public Works at Fort Leonard Wood was contacted (573-596-7109). She included a former Public Works Officer, Mr. Gary Dye, in the discussion. According to Ms. Howe and Mr. Dye, because the Department of Labor (DOL) wanted the buildings that are now the Job Corps property, the Department of Defense (DOD) reportedly issued a license. Part of the agreement was that DOL would clean up the buildings as funds became available. The buildings and what remained of the (non-ammunition) inventory were transferred to DOL in 1978. It is reported that DOL employed the services of an architectural and engineering firm in St. Louis for a period of eight years to oversee the cleanup, and this firm has retained any records, according to Ms. Howe. No reports could be located. Ms. Howe and Mr. Dye also reported that the former USATHAMA performed an environmental assessment of the facilities before they were turned over to DOL which identified existing contamination, but those records could not be located.

4.2 Historical Compliance Issues

The Job Corps facility was inspected by Mr. Mike Struckhoff of the Missouri Department of Natural Resources (MDNR) on January 8 and 12, 1998. Mr. Struckhoff prepared an inspection report that cited the Job Corps for 10 violations of federal and state environmental laws and regulations. A copy of the Settlement Agreement that resulted from that inspection is included as Appendix A. The findings are summarized below as Notices of Violation 5078 and 5095:

- Storage of hazardous waste that exceeds the allowed duration in violation of 10 CSR 25-2.262(1) and 40 CFR 262.34(a)
- Storage containers not clearly marked "Hazardous Waste" in violation of 10 CSR 25-5.262(1) and 40 CFR 262.34(d)(4)
- Storage area not inspected and maintained weekly in violation of 10 CSR 25-5.262(2)(C)2.C.(II) and 40 CFR 265.174
- Storage area that did not have a posted "No Smoking" sign in violation of 10 CSR 25-5.262(2)(C)2.F.(II)
- Storage area that did not have spill control equipment properly maintained in violation of 10 CSR 25-5.262(1) and 40 CFR 262.34(d)(4)
- Storage area that did not have emergency phone numbers and location of emergency equipment posted in violation of 10 CSR 25-5.262(1) and 40 CFR 262.34(d)(5)(ii)
- Hazardous waste containers that were not in good condition violating 10 CSR 25-5.262(1) and 40 CFR 262.34(a)(1)
- Hazardous waste containers not labeled during the entire in-site storage period violating 10 CSR 25-5.262(2)(C)1 and 40 CFR 262.31 and 40 CFR 262.32
- Hazardous waste containers not marked with the accumulation date violating 10 CSR 25-5.262(1) and 40 CFR 262.34(d)(4)
- Failure to determine if wastes are hazardous violating 10 CSR 25-5.262(1) and 40 CFR 262.11

With the exception of the final violation, all of the above citations apply to Small Quantity Generators (SQGs) of hazardous waste. The only violation that applies to both SQGs and Conditionally Exempt Small Quantity Generators (CESQGs) is the final violation regarding the

determination of whether the generated waste is hazardous. This is significant in that it is stated on page 1 of the Agreement that "Job Corps generates approximately 40 pounds of hazardous waste per month and considers itself a conditionally exempt small quantity generator of hazardous waste." If, indeed, the Job Corps is a CESQG, then the only violation that would apply would be the final one. However, the state possesses quarterly reports of hazardous waste generation submitted by the facility that frequently have claimed greater than the 220 pound threshold (100 kg) per month allowed of CESQGs by the regulations. A September 1998 report is attached as Appendix B in which a claim is made that 30 pounds of hazardous waste was generated during that quarter. A determination of the generator status of the facility is crucial, not only to the status of the violations, but also in identifying with which of the hazardous waste regulations the Center must comply.

As part of the Settlement Agreement, the Job Corps also committed to providing training to select employees, to complying with the violated regulations, and performing an environmental audit of the overall facility. This report constitutes part of the fulfillment of that Agreement.

5. CURRENT ENVIRONMENTAL CONDITIONS

A database research, personnel interviews, and site visits were used to assess current environmental conditions of the property.

5.1 Surrounding Property Database Summary

A database survey was performed for the Job Corps Center and surrounding properties using VISTA Information Solutions, Inc. This survey meets the ASTM Standard E-1527 for standard federal and state government database research in a Phase I environmental site assessment. The survey encompassed properties within a 1.5-mile radius of the Job Corps Center. The following databases were included in the search:

<u>RADIUS OF THE SEARCH</u>	<u>DATABASE</u>	<u>NO. FACILITIES W/IN 0.625 MILE</u>
-----------------------------	-----------------	---------------------------------------

Within 1.5-mile Radius:

• NPL	Federal National Priority List	0
• CORRACTS	Federal RCRA Corrective Actions	0
• SPL	State equivalent priority list	0

Within 1-mile Radius:

• CERCLIS/NFRAP	Federal current or former review	5
• TSD	Fed RCRA-permitted treatment, storage, or disposal facilities	0
• LUST	State leaking Underground Storage Tanks	15
• SWLF	State-Permitted SW landfills, incinerators, or transfer stations	0
• Water Wells	Federal and State Drinking Water Sources	0

Within 0.75-mile Radius:

• RCRA violations	Federal RCRA violations and enforcement actions	7
• TRIS	Federal Toxic Release Inventory database	4
• UST/AST	State-registered underground or above ground storage tanks	26

Within 0.625-mile Radius:

• ERNS	Federal Emergency Response Notification System of spills	4
• GNRTR	Fed RCRA-registered small/large hazardous waste generators	17

Appendix C presents the detailed results of the database search. The database lists the following properties in the 4300 block of Goodfellow Boulevard:

- St. Louis Ordinance Plant (4300)
- Sverdrup USAR Center (4301)
- USGSA Federal Center (4300)
- US Department of Agriculture Midwestern Lab (4300)

- St. Louis Job Corps (4333)
- US Army 102D US ARCOM - AMSA/55/G (4301)
- Madison Warehouse Corporation as Agent (4300)

Of the six properties located closest to the Job Corps Center, two have been under federal environmental review (Ordinance plant and USDA lab); one has known leaking underground storage tanks (Army 102D); one has reported RCRA violations (USDA lab); two have underground or aboveground registered tanks (USGSA Federal Center and Army 102D); and two are small or large quantity hazardous waste generators (Sverdrup and USDA lab).

Although it cannot be stated from the database research whether any releases have occurred at these sites (other than from the leaking underground storage tank), all of these properties have the potential to impact the environmental conditions at the Job Corps facility if chemicals or wastes have migrated beyond their property boundaries. The most likely way for contaminants to travel to the Job Corps site is through ground water or dispersed in air. However, there are no reported water wells in the vicinity, so any chance of exposure to migrating chemicals in ground appears to be low. No statement can be made at this time regarding releases to air without a more comprehensive investigation.

5.2 Wetlands Survey

A wetlands survey was performed as part of the environmental assessment for the Job Corps facility (US Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory, 1987). There are no delineated surface water bodies or wetlands with two miles of the site. Therefore, the potential impact of site activities on the wetlands of the area is considered negligible.

5.3 Site Visit and Compliance Observations

A site visit was conducted on June 10, 1999 for the purpose of observing materials and waste handling practices, making observations as to obvious gross contamination on the property, and to assess the condition of the facilities. As stated previously, the Site Maintenance Supervisor and the Manager of Safety and Security accompanied DTS personnel. An attempt was made to enter each structure. The following is a summary of observations made during the visit.

Underground

A series of tunnels runs beneath the property. These tunnels house the HVAC plant and other utilities. It appears that some of these tunnels also were used for storage. It is not known whether the Army cleaned out all of their materials from these tunnels prior to the occupation by the Job Corps. As a result, some hazardous materials still might be present.

The main tunnel runs the length of the property in a north-south direction, just west of the central road that bisects the Job Corps property. The tunnel begins at the Administration Building and runs under the shops (Buildings 232A through H) and under the Education Building. It appears from site maps that there are at least two laterals, one just south of the dormitories (Building 223A) and possibly one that goes through the athletic field. It is not clear whether this second lateral connects with the main tunnel, or whether there might be more tunnels that are not clearly shown. The main environmental concern associated with the tunnels appears to be the presence of asbestos containing materials (ACMs). This and other environmental concerns will be further discussed in the following paragraphs.

Asbestos

Asbestos was observed in many areas of the Job Corps Center. Not only were probable ACMs evident in pipe insulation and throughout the tunnel areas, but asbestos might also be present in the floor tiles, mastic, dampening felt, and other areas of the Center where students and instructors are active on a daily basis. ACMs that are not friable do not pose an immediate health risk. However, using the Center buildings themselves for construction instruction may inadvertently expose students to ACMs.

There appears to be three general categories where asbestos may be a concern at the Center.

1) The staff and student body may be exposed to asbestos that could be present in the classrooms and in building materials that are undergoing renovation as part of instruction. 2) The maintenance staff is concerned about their possible exposure to asbestos when they enter the tunnels as part of their jobs. 3) Outside contractors have occasion to come onsite to perform repair or renovation work both in the tunnels and in the buildings, possibly mobilizing asbestos fibers during that work.

Compliance with asbestos regulations in educational facilities is critical and very complex. This is due in part because of existing regulations, but also because improper asbestos management in schools can (and has in the past) resulted in conditions leading to increased asbestos exposure for attending students.

Entering the tunnels has the potential to expose the casual visitor and staff member alike to airborne fibers that may be loosened from exposed friable pipe insulation. Pressure differences in the tunnel rooms strong enough to create a perceptible breeze at doorways, and open passageways could carry fibers from a room containing ACMs into an area thought to be free of asbestos. Although warning signs are posted and most of the doors to the tunnels were locked during the site visit, one door in the basement of the dormitory building was unlocked and open. Figure 2 is a photograph of some of that pipe insulation.

The Job Corps has a *Project Manual Asbestos Abatement* (Project # 672-9A021, Set No. 1A dated June 16, 1999) which states, "These plans have been compiled from existing drawings to illustrate the general location of asbestos-containing materials only. Any use of these plans for constructional purposes requires field verification." The job specification only estimates locations and quantities of asbestos-containing materials. There is no evidence that the contractor's proposal document contains field verification of locations and quantities of asbestos-containing materials. Someone knowledgeable about Asbestos Management Programs should continuously monitor any contractor's removing or repairing asbestos-containing materials. Currently the Job Corp does not have anyone with this expertise internally and should use an outside service/consultant to ensure students do not become exposed to airborne asbestos and compliance with applicable regulations is maintained.

Maintenance and Storage

Access to the utility tunnels can be made through the basement of the maintenance shop. An abandoned steam generating system is housed there. Floor drains are used to dispose of condensate and the floors were wet during the site visit. Building 237 is maintenance storage, one of two places where the bulk of the chemicals are stored onsite. Generally, the storage building contains chemicals for water treatment, carbon dioxide cylinders, old equipment, adhesives, mineral spirits, cleaning and janitorial products, and weed killer. There are numerous small quantities of chemicals that are old or expired, as shown in Figure 3.

Building 232HBI also contains chemicals being stored. These include paint and thinners, joint compound, adhesive remover, concrete staining and a variety of others. This storage also contained chemicals that were no longer needed.

In either storage area, there was no evidence of releases or quantities of chemicals being stored in improper or unmarked containers. The storage areas were locked and placarded.

Cement and Masonry

The Cement and Masonry building was much like the other shops that were visited. Miscellaneous material and chemical storage was in designated areas. Flammables were stored in proper flammable cabinets. (See Figure 4.) The sink had a sump and solids trap associated with it. (See Figure 5.) The instructor was responsible for cleaning out the sump and solids trap and disposing of the waste.

The Plaster and Cement Storage Building 304 contained two 55-gallon drums that contained a clear liquid that smelled like solvent. The drums were hand marked as "cure", and what label there was indicated that the drums would be hazardous when empty. There was no ventilation that was able to evacuate the vapors, which were very noticeable upon entering the building. An electric heater was located just above the drum storage area.

The sumps located outside of the storage building contained water and solids (cement, etc.) that go to a dumpster. The liquid is allowed to evaporate.

Plaster Storage

The plaster storage building is located next to the cement and masonry storage building. It contains buckets of centrastone and liquid bonding agents, as well as gypsum plaster, cement, caulking, acrylics, Poly74-30RTV liquid rubber, and a rechargeable battery. There was no evidence of spillage or improper storage.

Carpentry Shop

The carpentry shop contained a sump and drain system and a flammable storage cabinet. Also used there are paint thinners, adhesive solvents, varnish, and enamel paints. All of the hazardous liquid waste, along with rags and other materials contaminated with hazardous materials, goes to the paint shop for storage for disposal. There was no evidence of spillage or improper storage, although no satellite storage area was apparent.

Academic Buildings

There were no environmental issues associated with the academic buildings. These buildings were reported to have been used as warehouses for ammunition when the army was the operator and the floors are reportedly spark-proof. However, there was no evidence of any environmental problems from past or present use, with the exception of the underlying tunnels, which are discussed elsewhere in this report.

Along the main street in front of the academic building, Wellness Center, and dormitories are located white structures with welded tops, as shown in Figure 6. No one knows the origin, use, or condition of these bunkers. It is unknown whether hazardous material can be found in these structures.

Wellness Center

Other than solid waste, the Wellness Center generates biological waste and sharps. This waste is boxed and taken offsite for disposal by an outside contractor who comes once a week. There was no other evidence of any environmental issues associated with this building, other than the underlying tunnel which is discussed elsewhere in this report.

Business/Clerical/Retail

There were no chemicals or other hazardous substances used or stored in this portion of the building.

Welding Shop

Building 244 is the welding shop. Outside under roof on an elevated storage pad are cages containing compressed gases (helium, acetylene, argon, carbon dioxide, and oxygen). It appears that these cylinders do not come into contact with rainwater and do not constitute a stormwater issue. The slag from the welding shop goes to a dumpster. Scrap metal is recycled. All cylinders are returned to the manufacturer to be refilled when empty. Compressed gas lines are located in the building and are undergoing renovation to fix leaks. Due to safety considerations, the team was not allowed in the welding shop for its inspection.

Electrical switches were being stored outside of the welding shop on a concrete pad, as shown in Figure 7. It was reported these switches contained PCBs. There was some evidence of leakage on the pad and no containment that would prevent the leakage from migrating to the surrounding soils. Center personnel reported that the soils were sampled and found to be free of PCBs, but no supporting documentation was available at the time. The switches were scheduled to be removed from the Center in the near future. Depending on the concentration of the PCBs in the switches, this storage could be in violation of TSCA and would require a stormwater permit if allowed to remain outside.

Dormitories

The aboveground portions of the dormitories were not thoroughly inspected, but reported have no environmental issues associated with them. However, the basement of the dormitories contains what appears to be ACMs and other non-identified materials. The basement door was not locked when the visit was conducted, allowing anyone onsite to enter this restricted area. The basement housed some heating equipment and there was water on the floor around large equipment. Apparent ACMs were prevalent throughout the area seen during the visit. Because the inspection team was not properly protected against asbestos, the visit was short and did not extend beyond what was visible from the doorway. However, it appeared that left over materials (waste or equipment), possibly from the army, was housed in the basement.

Paint Shop

The paint shop is located next to the hazardous waste storage area. It contains a shop and a spray paint booth that is used two or three times per week. This is the operation that generates the majority of the hazardous waste from the site. MDNR reportedly came out to inspect this operation and did not specify the need for an air permit. No EIQ has been completed or letters were produced to document this. Paint filters reportedly are bagged and handled as hazardous waste, although none were evident in the hazardous waste storage area. Small amounts of waste liquids that are flammable (thinners and varnishes) are stored in an unmarked paint can on a work bench as satellite storage for about a week before being taken to the hazardous waste storage area. There was no evidence of spillage in this shop.

Hazardous Waste Storage Area

The hazardous waste storage area is located in a locked room in Building 232, next to the paint shop. The floor is bermed with secondary containment and there is explosion-proof wiring throughout. Waste is stored in a closed 55-gallon drum that is clearly marked. Safety Clean reportedly takes out approximately 30 gallons every six months. Most of the waste is from the carpentry and paint operations. New chemicals also are stored in the same building. There was no evidence of spillage or improper storage at the time of the visit, although the Center has previously been cited by the MNDR for improper storage of hazardous waste (i.e., no emergency numbers posted, lack of a No Smoking sign, etc.) It appeared that storage was in compliance. No paint filters, rags, or other materials contaminated with hazardous waste were

stored in the hazardous waste storage area at the time of the site visit. Mr. Wolf, the painting instructor, is in charge of the hazardous waste storage area and has the only key to the building.

6. HAZARD COMMUNICATION AND ENVIRONMENTAL REGULATIONS TRAINING

On July 22, 1999 DTS performed a day-long training session to comply with the conditions of the Settlement Agreement. The topics of the session are shown in Figure 8.

**Figure 8. St. Louis Job Corps Center Waste Management and
Hazard Communication Training
July 22, 1999**

8:00 – 8:05	<u>Welcome and Introduction</u>
8:05 – 10:00	<u>Solid and Hazardous Waste</u> Introduction to RCRA Regulations Identification of Solid and Hazardous Waste RCRA Permits and Generator Requirements Hazardous Waste Accumulation and Storage Requirements Shipping, Labeling and Manifesting Waste RCRA Enforcement and Corrective Action
10:15 – 12:30	<u>Hazard Communication and Chemical Management</u> Introduction to Hazard Communication Chemical Labeling and Conducting/Maintaining Chemical Inventories Physical Forms and Exposure Hazards Types of Physical and Health Hazards Controlling Chemical Hazards Understanding the MSDS – Physical and Health Hazards Employee Access and Training Requirements Guidelines for Compliance with SARA Title III
1:15 – 1:45	<u>Pollution Prevention</u> Common Waste Handling
1:45 – 2:30	<u>Asbestos</u> Recognition of Asbestos Containing Material Asbestos Regulations Sampling and Surveying Asbestos
2:45 – 4:00	<u>Asbestos (continued)</u> Certification Elements of an Asbestos Abatement Program
4:00 – 4:15	<u>Wrap-Up</u>
4:15 – 4:45	<u>Questions and Answers</u>
4:45 – 5:00	<u>Evaluation and Feedback</u>

Four people were trained – staff from security and maintenance. The main purpose of the training session was to raise the level of awareness of the staff with regard to chemicals in the work place, emergency procedures, Material Safety Data Sheets, identification of hazardous waste, waste handling procedures, and a basic overview of RCRA regulations. Emphasis was placed on where to obtain information and help in making decisions in the field. Table 1 is a list of the personnel who were trained and their position at the Job Corps Center.

Table 1. Personnel Completing Waste Management and Hazard Communication Training on July 22, 1999

<u>Name</u>	<u>Position</u>	<u>Phone Number</u>
Perry L. Johnson	Manager of Safety and Security	679-6272
Berta Willoughby	Safety and Security	679-6243
Ronald Moore	Maintenance: Mech I	679-6289
Sammy I. Norman	Maintenance	679-6289

7. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

7.1 Findings and Conclusions

The following findings and conclusions were based on information available to DTS at the time of this report. Although inquiries have been made to the Departments of Defense and Labor to obtain historical records that would supplement DTS' current understanding, this information could not be located in time for inclusion in this evaluation.

The findings and conclusions are subdivided into several main areas, as presented below.

Environmental Compliance

Based upon information provided during the site visit and interviews with site personnel, the following findings can be presented relative to the Job Corps Center's compliance with environmental regulations. Although compliance with all applicable environmental regulations and laws may already have been achieved by the site, records and knowledge of site personnel were not adequate for DTS to determine current compliance status.

- 1) **RCRA** – It was not possible to tell at the time of the site visit whether the facility is in compliance with the RCRA generator regulations (transporter and TSDF regulations don't apply). The facility believes that they fall under the threshold for CESQG status; however, some of their quarterly reports show that they probably are classified as a SQG, which is how the MDNR classifies them. In the event that the site is classified as a SQG, it must comply with the compliance checklist that is included as Appendix D. There are areas where compliance was not demonstrated to DTS (e.g., reporting and record keeping). Therefore, the RCRA generator compliance status of the facility has not been firmly established.
- 2) **EPCRA** - Requirements concerning Material Safety Data Sheets (MSDS) apply to the Job Corps Center, but other reporting, such as the Toxic Release Inventory, Risk Management Planning, Emergency Release Notification, etc probably do not. The applicability of these other EPCRA requirements cannot be determined until a chemical inventory is performed. Although MSDS were available for most chemicals used onsite, they were not readily apparent at all locations where chemicals are stored and used and could probably not be found quickly in the event of an emergency.
- 3) **Clean Air Act** - Emissions from the spray paint booth (the only emission source other than from the boilers) are in compliance according to the Missouri Department of Natural Resources (MDNR) inspector. It appears that an air pollution permit is not required, but the site has not filled out the Emission Inventory Questionnaire (EIQ) that would definitively determine compliance. No documentation of their status was produced.
- 4) **Stormwater Permit** – According to site personnel, no chemicals, raw products, or finished products are stored outdoors where they could come into contact with rainwater or run-off. During the site visit, this seemed to be the case, with the exception of the switches stored by the welding shop. If no outside storage is maintained throughout the year, no stormwater permit is necessary for the site. (See #7 below)
- 5) **RCRA Subtitle I (Underground Storage Tanks)** – There are no underground storage tanks at the facility, so these regulations do not apply.

- 6) **Toxic Substance Control Act (TSCA)** – Although there are PCB switches that were temporarily being stored onsite, they were scheduled to be taken to a TSCA disposal facility. If the switches have not yet been disposed, the site may be out of compliance with TSCA regulations and stormwater permit regulations. Past informal soil sampling reportedly confirmed that no PCBs had been spilled onto the soils, but the appearance of the switches and stains on the concrete pad indicate that there was a possibility that releases had occurred in the past.
- 7) **SPCC** – Because no petroleum is stored onsite in either aboveground or underground storage tanks, there is no requirement for an SPCC plan.
- 8) **NPDES** – There are currently no discharges to the surface of the ground or surface water bodies, other than washwater from the concrete and plaster shops. According to site personnel, this washwater does not contain regulated effluents. If this is the case, NPDES does not apply to the site.
- 9) **Wastewater Discharge** – According to the site, there is a combined sanitary/stormwater sewer system that serves the facility. There was no documentation that there was an agreement between the Job Corps Center and the local Publicly-Owned Treatment Works (POTW) to allow discharge of process wastewater to the sewer. A written agreement is necessary to ensure that the effluent guidelines are being met and that POTW NPDES permitting is not being jeopardized.
- 10) **Miscellaneous Materials Handling** – Based upon discussions with site personnel, it appears that batteries, light ballasts, empty containers, and other miscellaneous materials are being managed in an appropriate manner. However, there are no written policies available on the subject.

Regulation	Compliance Status				Comments
	In Compliance	Not In Compliance	Undetermined	NA	
RCRA Generator			X		Must confirm and maintain generator status
RCRA TSD/Transporter				X	Not a transporter or TSDF
EPCRA			X		Chemical inventory required, MSDS need to be visible
CAA	X				In compliance according to MDNR, should complete EIQ to confirm
Stormwater			X		PCB switches must have been moved indoors or offsite
USTs				X	No USTs onsite
TSCA			X		PCB switches properly disposed?
SPCC				X	
NPDES				X	If wastewater from concrete is chemical-free
Wastewater		X			Need agreement with POTW
Asbestos		X			Has not been managed or abated
Miscellaneous	X				According to interview info

Hazard Communication

There were no formal or documented Hazard Communication policies or procedures available for review. It appears that the MSDS are up-to-date and are available for all chemicals. However, the MSDS information was not obviously located where all chemicals were stored and would have been difficult to locate in the event of an emergency. The emergency numbers for the site were posted in the hazardous waste storage area, but may be difficult to access in the event of an emergency in another part of the Center.

Training

Staff training was provided on July 22 to fulfill the Job Corps' commitment to the April 19th Settlement Agreement. Past training records were not reviewed, but the response of those participants being trained during the most recent July session indicated that additional training was desired. Four site personnel were introduced to RCRA and Hazard Communication concepts, but details of emergency response, chemical handling, and RCRA compliance were not presented in this overview course.

Asbestos

ACMs are reported to be present in many of the tunnels beneath the facility. Although the type and amount of asbestos has not been characterized, there is considerable concern on the part of the Job Corps employees regarding exposure to asbestos. Routine maintenance requires that maintenance staff perform work in the tunnels. The staff has been trained on personal protective equipment, but appear to lack confidence in deciding under what circumstances protection is required. There was some concern that maintenance performed in an asbestos-free area may still result in exposure from interconnected portions of the tunnels that contain friable asbestos. The Job Corps has no idea where all of the ACMs are located or what volume of ACMs exist onsite.

Environmental Conditions and Waste Management

Due to the historical use of the property, it is expected that some environmental contamination may exist on the Job Corps property, although no recent sampling has been performed to confirm this. It was common for wartime military activities to have resulted in contamination at sites around the country. It appears that military products and raw materials have been removed from those areas of the site that were observed during the site visit. However, there was considerable trash and other debris that was found in the tunnels that had not been characterized or classified and that may contain hazardous substances.

Because historical records and reports could not be located for this study, there is no indication of the conditions under which the property was transferred to the Job Corps. Based upon the nature of the activities currently underway, there is little concern that widespread contamination exists as a result of Job Corps operations. There were no reports of uncontrolled spills or chemical discharges to the environment. There was no evidence of soil staining or other releases to the environment. Properties directly adjacent to the Job Corps site were not accessible to the investigative team, and it is entirely possible that environmental contamination and other hazards exist in the unused military property. This impression is further reinforced by the nature of the construction of the bunkers and rigorous access restrictions associated with the abandoned buildings.

There were no formal procedures for instructors or maintenance/security personnel to follow regarding the identification or management of hazardous materials, hazardous wastes, liquid discharges, or solid waste. There appeared to be no formal recycling or waste minimization

policy or procedure. Each instructor is given discretion to handle materials and waste in the manner in which they see fit. This could result in inconsistent practices and non-compliance in the event that instructors have not been adequately trained.

7.2 Recommendations

There are a number of recommendations that can be made that would reduce future liability, reduce or eliminate the potential for worker exposure, and minimize the cost of operating the facility.

Environmental Compliance

- 1) The first issue that should be addressed is the one of **hazardous waste generator status**. This status will dictate the compliance requirements for the entire facility. The requirements for CESQGs are minimal compared to those of the SQG. There is some ambiguity as to the current status of the facility. In the future, the facility should segregate all hazardous waste from solid waste, minimize the amount of waste generated (by methods such as reusing solvents until they are spent or replacing toxic with non-toxic raw products), and ensure that they do not accumulate more than the threshold of hazardous waste allowed by the regulations¹. In those rare cases where one month might exceed the threshold, the regulators should be consulted to see if a temporary exemption can be obtained.
- 2) It is recommended that there be a **single person to manage waste** at the Job Corps facility. This should probably be the responsibility of the Maintenance Manager. This person should be responsible for maintaining continued environmental compliance and should be required to perform weekly compliance inspections.
- 3) A **weekly compliance inspection** should be performed and documented using the compliance checklist for SQGs attached as Appendix D. All of those areas that are out of compliance should be immediately corrected. The form should be kept at the facility for inspection by regulatory personnel. If the generator status is maintained as a CESQG, the compliance requirements are minimal.²
- 4) **Better records** are necessary to document that compliance is being achieved. For example, if no air permit is required for the spray paint booth, this should be documented and put into a file. The same is true for a wide variety of claims, such as the refilling of compressed gas cylinders, stormwater compliance, agreements with the POTW, etc.

Hazard Communication

The overall **hazard communication program needs improvement**. The following are recommendations:

- 1) Develop a comprehensive understanding of the standard (29 CFR 1910.120).

¹ The regulations state that CESQGs cannot accumulate more than 100 kg (220 pounds) of hazardous waste or 1 kg (2.2 pounds) of acutely hazardous waste in any month. They also state that CESQGs cannot accumulate more than 100 kg (220 pounds) of hazardous waste at any one time. 40 CFR 261.5

² CESQGs must meet the following requirements: 1) identify all hazardous waste (40 CFR 261.3, 261.4(b), 261.24, and 262.11), 2) must not offer their waste to transporters or TSDFs that have not received an EPA identification number (40 CFR 262.12(c)), 3) maintain their generator status, and 4) empty containers as per the regulations (40 CFR 261.7).

- 2) Establish a written hazard communication program.
- 3) Implement a container labeling policy.
- 4) Maintain MSDS for each hazardous chemical and keep them posted where chemicals and wastes are stored.
- 5) Establish a rigorous, current employee training program and document training.

One way to help establish the program is to obtain a hazard communication manual. Although DTS does not necessarily endorse any particular manual, one is available from the National Association of Demolition Contractors called *Hazard Communication Program Manual* (800-541-2412 or www.demolitionassn.com).

Training

Additional training is recommended, supplemental to any hazard communication training that is performed. All of the maintenance staff should be trained in more detail in hazardous waste identification, handling, and RCRA requirements. Those responsible for managing the hazardous waste storage area should be provided additional training on their responsibilities and the importance on complying with generator requirements.

Asbestos

It is recommended that a **comprehensive asbestos survey** be performed to identify the type, volume, and locations of all ACMs. Although it is not necessary to remove all of the asbestos in the facility, an **Asbestos Management Plan** should be written that would document: 1) how employees are to be protected from exposure, 2) the procedures that would be followed should demolition or new construction be undertaken (asbestos abatement), 3) where asbestos is located in the facility, and 4) procedures to be followed for contractors working onsite in areas potentially containing ACMs. It is recommended that the area where the boilers are located be paid particular attention because this is the only area of the tunnels where employees routinely work. The boiler room work area should be modified and surveyed so it can be certified as asbestos-free by removing or encapsulating any friable asbestos in the area and sealing off all adjacent areas containing asbestos. There should be a policy established as to when staff members should wear personal protective equipment (PPE) and who is adequately trained to work under those conditions. Procedures for decontamination and emergency measures in the event of accidental exposure should be articulated in the written plan.

In the event that there are plans to renovate or demolish an existing building or if there is a desire to remove asbestos for other reasons, a certified contractor should be employed to delineate the ACMs by performing a comprehensive asbestos survey. Strict state requirements must be met. A formal **asbestos abatement plan** should be written in the event that any asbestos is removed or encapsulated. Asbestos abatement also must be performed by a certified contractor.

Environmental Conditions and Waste Management

It is recommended that several **environmental management policies** be written to provide consistency among the staff and to minimize the likelihood of an accidental release or exposure and to reduce the likelihood of violations. The areas that most need policies include:

- Purchasing and chemical distribution
- Chemical and waste storage

- Chemical handling
- Empty container management
- Disposal to the drain
- Pollution prevention

In addition to written policies, it is recommended that materials **purchasing be centralized** so that an accurate inventory of chemicals can be maintained. Chemical storage needs to be rigorously managed and all materials should be identified and labeled. Incompatible materials should be stored in separate areas.

A **chemical inventory** should be performed and updated annually. Knowing the specific chemicals and amounts that are kept onsite, the date of purchase, and the expiration date will benefit the Center in a number of ways. First, there are several notification and reporting requirements in the regulations for facilities that store or use threshold amounts of a vast number of chemicals. Currently, there is no way of knowing whether any of these requirements apply to the Job Corps Center because a chemical inventory is not maintained. The compliance status of the facility relative to EPCRA could be confirmed. Non-compliance with these regulations could result in penalties and fines. Other benefits result when chemical products are purchased only as needed, which should reduce waste from expiration and should eliminate the problem of numerous small quantities of unused products.

Specific Area Recommendations

There are areas within the facility that need attention to ensure that they maintain compliance and are operated safely. These are briefly listed below with recommendations for improvement:

- 1) Remove and properly dispose of the PCB switches immediately if this has not occurred.
- 2) A lead paint survey should be performed.
- 3) Chemical storage should be consolidated in a single place that has proper aisle space, MSDS posted, and proper markings should be maintained. All old chemicals should be properly disposed as soon as possible.
- 4) Each shop should have waste handling procedures posted, particularly with regard to sump cleanout and miscellaneous chemical disposal.
- 5) Building 304 - Two 55-gallon drums of liquids that smelled like solvents and had instructions on the drums saying the drums should be handled as hazardous waste when empty. The drums should be labeled with their contents if they do not contain waste. If they do contain waste, an accumulation date is necessary on the label, the drums should be marked "Hazardous Waste", and they should be moved to a designated storage area and properly disposed once the drum is full. These drums should be stored in a ventilated area away from heating elements and should have lids on them at all times.
- 6) Hazardous Waste Storage – More than one person needs to be trained in its operation and at least three people should have access to the key to the door. Wastes should be segregated from raw materials.
- 7) Welding and Paint Shops – Any areas that have compressed gas travelling through lines under pressure should be tested for fugitive emissions. Any leaks should be repaired.

- 8) Building 223A – Work needs to be done to ensure that staff is not exposed to asbestos in the basement. Ponded water needs to be removed and leaks repaired. All doors to this area should be kept locked until the asbestos is controlled.
- 9) Satellite accumulation regulations should be followed everywhere hazardous wastes are accumulated. This applies particularly to the Paint Shop.

7.3 Limitations

This report was prepared as a result of a contractual agreement that defined the approach and scope of services to be employed during the course of this assessment and evaluation. The opinions, conclusions, and recommendations expressed in this study have been based on the results of these contracted services. This report should not be construed to be a warranty or guarantee that all environmental impairments or non-compliance issues have been uncovered. No conclusions are stated or implied for purposes other than those expressly set forth herein or for use by parties other than the client. The procedures used to perform this work were based on standard engineering practices.